



U.S. ARMY CHEMICAL MATERIALS AGENCY

Summary information on the Army's new guidance policy for the revised airborne exposure limits for chemical warfare agents*

On June 18th, 2004, the Army issued a guidance policy to implement the new airborne exposure limits (AELs) for chemical warfare agents published by the Centers for Disease Control and Prevention (CDC) within the last year. This fact sheet summarizes the Army's new guidance policy.

Purpose of the Army AEL guidance policy

The purpose of the guidance policy is to continue to provide a safe and healthful environment by adopting the CDC's new AELs for chemical agents. The policy adopts the CDC's AELs for the nerve agents GB, GA, and VX, and the blister agents H and HD. In addition, the Army has revised the AELs for GD and GF, to be consistent.

The basics: What is an airborne exposure limit?

An AEL sets the concentration of a pollutant or toxic substance in air that is safe for workers or the public for a specified period of time. For more information on the new CDC AELs, see the Army fact sheet "CDC Revises Airborne Exposure Limits for Chemical Agents."

The CDC's revised airborne exposure limits

The CDC is responsible for setting AELs for chemical warfare agents, and it reviewed and updated previous AEL values using the newest risk methods. Although the new AELs are more stringent, the CDC notes "there is no indication

that the current exposure limits, as implemented by the US Army PMCD, have been less than fully protective of human health." The CDC also states that there is no "change in . . . the demonstrated human toxicity of these substances."

Monitoring for chemical agents at Army workplaces

All areas where people work directly with, or near, chemical agents must be monitored for agent based on an approved monitoring plan. These areas will be sampled at the worker population limit (WPL) at specified intervals and monitored continuously at the short term exposure limit (STEL). Monitoring at the WPL protects workers from being exposed to extremely low concentrations of agent, well below any known long- or short-term health effects. WPL monitoring is intended to serve as a sentinel or early warning to ensure a safe work environment for workers who do not wear personal protective equipment. If the WPL is exceeded, the area will be restricted and a notice posted, until the cause of the problem is identified and corrected. Workplaces will develop and follow a WPL Excursion Response Plan for these situations. STEL monitoring protects workers by identifying very low concentrations of agent within 15 minutes. If agent is detected, the short STEL monitoring cycle alerts workers, who can then protect themselves, such as by masking or leaving an area, without being exposed to unsafe levels.

For more information, contact the CMA Public Affairs Office at (410) 436-3629 (800) 488-0648

* Implementation Guidance Policy for Revised Airborne Exposure Limits For GB, GA, GD, GF, VX, H, HD, and HT. 18 June 2004, Ray Fatz, Deputy Assistant Secretary Department of the Army (Environment, Safety, and Occupational Health), Office of the Assistant Secretary of the Army (Installations and Environment).



Summary of new Army AEL guidance (continued)

The M40 gas mask

The M40 mask provides respiratory protection for eight hours for up to 50 times the WPL for the chemical agent present at that time, or 15 minutes of protection for up to 50 times the STEL. The M40 mask will not be used for chemical agent concentrations at the limit known as Immediately Dangerous to Life or Health (IDLH). M40 masks may be used only for escape purposes when working in H, HD, or HT environments.

Chemical event categories for workers exposed to agent

The definitions for a Category I and Category II chemical event have been modified based on the new AELs. See the guidance policy for more information.

Decontamination for workers leaving chemical agent areas

Workers are not considered contaminated unless they were in a work area where liquid or aerosol agent was present or where agent concentrations were above the STEL. If contaminated, their personal protective equipment (PPE) must be decontaminated to below the STEL, before leaving the work area. In the case of a worker needing immediate medical care, his or her PPE will be decontaminated and then first responders will cut the worker out of their PPE. When taking the worker for medical treatment, those involved will work to limit the spread of contamination. For more details, see the guidance policy.

Decontamination and disposal of equipment and facilities

The Army is changing its procedures for classifying the contamination status of equipment and facilities used in and around chemical agent operations to continue to comply with applicable laws. The Army will no longer use the "X" classification system (X, 3X, 5X) to identify the contamination status of material or facilities. However, equipment and facilities previously characterized under the "X" system may continue to be managed under that system.

As long as equipment or facilities have not been in direct contact with liquid or airborne chemical agent, they can be considered uncontaminated provided certain other conditions are met. These conditions primarily

concern the monitored readings for agent in the air around the equipment or facility. In general, as long as the air readings have not exceeded certain AEL values, equipment or facilities are considered uncontaminated. In some cases, additional risk-based considerations must also be evaluated before an item is considered uncontaminated. Consult the policy guidance for a full explanation of procedures for classifying material as contamination-free, as well as procedures for decontaminating material for reuse.

Materials or waste that meet the new definitions of clean may be sent for disposal at a landfill or treatment facility. Materials or waste not meeting definitions of clean will be disposed of at a permitted treatment, storage, and disposal facility. Items may be released to the public only if certain requirements are met. Each site must develop a decontamination plan that controls the proper release of items to the public. See the guidance policy for more information.

Laundry and PPE

Both personal protective equipment at the laundry and the laundry area itself may need to be monitored for chemical agent depending on whether PPE has been in areas where air monitor readings were above the STEL. However, if used PPE is monitored to the WPL, then the laundry will not have to be monitored. Any PPE that has come into direct contact with liquid or aerosol chemical agent cannot be reused.

Other topics

Existing chemical agent site plans and safety submissions remain valid and do not need to be modified.

Prior to shipping, environmental samples (soils, liquids, etc.), must be screened for agent if they may have been contaminated.

Training and health plans must be revised to address the new AELs. Employee training, as well as provision of information and education materials, is also required.

More information on these topics is available in the guidance policy.